35. Which of the following rocks would form by metamorphism of limestone ?

(a) Gneiss

(b) Slate

(c) Schist

(d) Marble

36. Which of the following is an igneous rock ?

(a) Rhyolite

(b) Pegmatite

(c) Dunite

(d) All of the above

37. Which of the following is a metamorphic rock ?

(a) Gneiss

(b) Mudstone

(c) Sandstone

(d) All of the above

38. Which of the following is an iron ore ?

(a) Hematite

(b) Wolfremite

(c) Calcite

(d) All of the above

39. Galena is a primary mineral of which of the following metals ?

(a) Zinc

(b) Lead

(c) Tungsten

(d) Aluminum

40. Gem variety of Beryl is called :

(a) Diamond

(b) Emerald

(c) Ruby

(d) Sapphire

Number of Pages in Booklet : **16**
पुस्तिका में पृष्ठों की संख्या
Number of Questions in Booklet : **70**
पुस्तिका में प्रश्नों की संख्या

Serial No. of Booklet
पुस्तिका क्रमांक

240073

Geology

Subject Code/विषय कोड : 24

Roll No. of Candidate/अभ्यर्थी का अनुक्रमांक : .....

OMR Serial Number/ओ.एम.आर. क्रमांक : .....

Signature of Candidate/अभ्यर्थी के हस्ताक्षर : .....

Date of Examination/परीक्षा तिथि : .....

Signature of Invigilator/वीक्षक के हस्ताक्षर : .....

Time/समय : **75** Minutes/मिनिट्स | Maximum Marks/पूर्णांक : **70**

Instructions

1. Answer *all* questions.
2. *All* questions carry equal marks.
3. In this booklet, the questions from serial no. **1** to serial no. **10** are related to general aptitude while questions from serial no. **11** to serial no. **70** are subject specific.
4. Each question has four alternatives marked as (a), (b), (c), (d).
5. Choose only one alternative as an answer of a question.
6. If more than one answer is marked, then it will be treated as wrong answer.
7. Candidate has to darken only one circle indicating the correct answer on the answer sheet by using **BLUE BALL POINT PEN**.
8. There is no provision of **Negative marking**.
9. Carrying Mobile phone in the examination hall is strictly prohibited. If any objectionable material is also found then action will be taken as per University norms.
10. Please fill your Roll No. and other information carefully on OMR sheet. In case of any mistake on OMR sheet, candidate will be responsible.
11. If there is any difference between English and Hindi version of questions, then English version shall be correct.

निर्देश

1. **सभी** प्रश्नों के उत्तर दीजिये ।
2. **सभी** प्रश्नों के अंक समान हैं ।
3. इस प्रश्न पुस्तिका में क्रमांक **1** से क्रमांक **10** तक के प्रश्न सामान्य अभिवृत्ति के तथा क्रमांक **11** से क्रमांक **70** तक के प्रश्न विषय केन्द्रित हैं ।
4. प्रत्येक प्रश्न के चार वैकल्पिक उत्तर हैं जिन्हें क्रमश: (अ), (ब), (स), (द) से अंकित किया गया है ।
5. प्रत्येक प्रश्न का केवल एक विकल्प उत्तर के रूप में चुनिये ।
6. एक से अधिक उत्तर देने की दशा में प्रश्न का उत्तर गलत माना जाएगा ।
7. अभ्यर्थी को सही उत्तर हेतु केवल एक गोले को उत्तर पुस्तिका पर **नीले बॉल प्वाइंट पेन** से गहरा करना है ।
8. **नकारात्मक अंक** प्रदान करने का कोई प्रावधान नहीं है ।
9. मोबाइल फोन का परीक्षा हॉल में लाना पूर्णतया निषिद्ध है । साथ ही कोई भी अन्य वर्जित सामग्री मिलने पर विश्वविद्यालय के नियमानुसार कार्यवाही होगी ।
10. अभ्यर्थी अपना रोल नम्बर एवं अन्य जानकारियाँ ओ.एम.आर. शीट पर सावधानी से भरें । ओ.एम.आर. शीट पर कोई भीं त्रुटि होने पर उसका पूर्ण दायित्व अभ्यर्थी का होगा ।
11. यदि प्रश्नों के हिंदी और अंग्रेजी रूपान्तरणों के मध्य किसी प्रकार का फर्क पाया जाता है, तब अंग्रेजी रूपान्तरण को ही सही माना जाएगा ।

Space for Rough Work
कच्चे कार्य के लिए स्थान

1. Find the correctly spelt word :

(a) Bouquete

(b) Boqquet

(c) Bouquette

(d) Bouquet

2. Himalayan Mountaineering Institute is at :

(a) Darjiling

(b) Dehra Dun

(c) Dharamshala

(d) Dispur

3. The ratio between speeds of two trains is 7 : 8. If the second train runs 400 km in 4 hours, then the speed of the first train is :

(a) 70 km/hr

(b) 75 km/hr

(c) 84 km/hr

(d) 87.5 km/hr

1. शुद्ध वर्तनी वाले शब्द को छाँटिये :

(अ) Bouquete

(ब) Boqquet

(स) Bouquette

(द) Bouquet

2. हिमालयन पर्वतारोही संस्थान यहाँ स्थित है :

(अ) दार्जलिंग

(ब) देहरादून

(स) धर्मशाला

(द) दिसपुर

3. दो ट्रेनों की गति का अनुपात 7 : 8 है । यदि दूसरी ट्रेन 4 घंटे में 400 किमी. की दूरी तय करती है तो पहली ट्रेन की गति क्या है ?

(अ) 70 किमी./घंटा

(ब) 75 किमी./घंटा

(स) 84 किमी./घंटा

(द) 87.5 किमी./घंटा

4. Choose the *correct* alternative that will complete the pattern :

125, 80, 45, 20, ?

(a) 8

(b) 10

(c) 5

(d) 12

5. Out of the four alternatives, choose the one which best expresses the meaning of the given word :

EMBEZZLE

(a) Misappropriate

(b) Balance

(c) Remunerate

(d) Clear

6. Name the artist who started his career as a painter of cinema posters :

(a) Satish Gujral

(b) M.F. Hussain

(c) Paramjit Singh

(d) Ganesh Pyne

7. Find two numbers whose sum is 26 and difference 4. Mark the lower of them :

(a) 10

(b) 24

(c) 4

(d) 11

4. पेटर्न को पूरा करने वाला **सही** विकल्प चुनिये :

125, 80, 45, 20, ?

(अ) 8

(ब) 10

(स) 5

(द) 12

5. नीचे दिये गये चार विकल्पों में से उस विकल्प को चुनिये जो दिये गये शब्द का सबसे उपयुक्त अर्थ है :

EMBEZZLE

(अ) Misappropriate

(ब) Balance

(स) Remunerate

(द) Clear

6. वह कलाकार जिसने सिनेमा के पोस्टर बनाकर अपना कैरियर शुरू किया था, उसका नाम बताइये :

(अ) सतीश गुजराल

(ब) एम.एफ. हुसैन

(स) परमजीत सिंह

(द) गणेश पैन

7. दो अंक जिनका जोड़ 26 है व अंतर 4 है को ज्ञात कीजिए । उनमें से छोटे अंक को बताइये :

(अ) 10

(ब) 24

(स) 4

(द) 11

8. With which field is Limba Ram associated ?

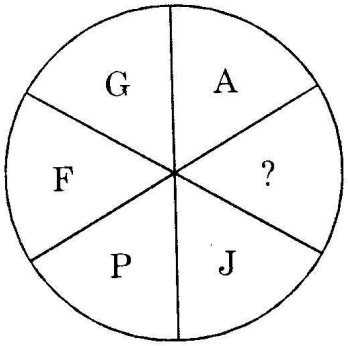
(a) Sports

(b) Politics

(c) Social Service

(d) Films

9. Which letter replaces the question mark ?



(a) H

(b) K

(c) I

(d) M

10. When is world population day celebrated ?

(a) May 31

(b) October 4

(c) December 10

(d) July 11

8. लिम्बा राम किस क्षेत्र से जुड़े हुए हैं ?

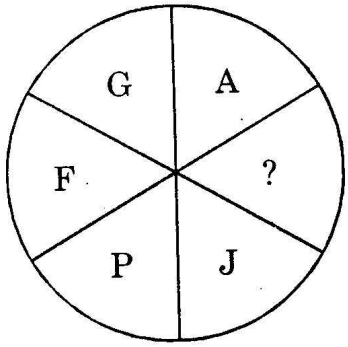
(अ) खेल

(ब) राजनीति

(स) समाज सेवा

(द) फिल्म

9. प्रश्न चिह्न को किससे बदलेंगे ?



(अ) H

(ब) K

(स) I

(द) M

10. विश्व जनसंख्या दिवस किस दिन मनाया जाता है ?

(अ) 31 मई

(ब) 4 अक्टूबर

(स) 10 दिसम्बर

(द) 11 जुलाई

11. Which of the following is a characteristic feature of glacial valleys ?

(a) U-shaped cross-section

(b) Straight course

(c) Uniform slopes

(d) Bedrock floors

12. Mohorovicic Discontinuity marks the boundary between :

(a) Mantle and crust

(b) Lithosphere and mantle

(c) Mantle and outer core

(d) Outer core and inner core

13. Which of the following gases is the most dominant component of the atmosphere ?

(a) Oxygen

(b) Carbon dioxide

(c) Ozone

(d) Nitrogen

14. A fault in which Hanging Wall has moved down relative to Foot Wall is called :

(a) Thrust

(b) Reverse fault

(c) Normal fault

(d) None of the above

15. A clinometer compass is used to measure :

(a) Strike

(b) Dip

(c) Dip direction

(d) All of the above

16. Which of the following features can be used to determine younging direction in a rock sequence ?

(a) Graded bedding

(b) Faults

(c) Lineations

(d) None of the above

17. Which of the following rock types would never yield fossils ?

(a) Granite

(b) Limestone

(c) Mudstone

(d) Sandstone

18. Which of the following periods is part of the Mesozoic Era ?

(a) Devonian

(b) Jurassic

(c) Carboniferous

(d) Permian

19. Which of the following geologic periods is the oldest ?

(a) Silurian

(b) Devonian

(c) Permian

(d) Triassic

20. Which of the following is the oldest formation in jurassic of Kachchh ?

(a) Katrol

(b) Chari

(c) Umia

(d) Patcham

21. Which of the following is the oldest stratigraphic unit ?

(a) Banded Gneissic Complex

(b) Aravalli Supergroup

(c) Delhi Supergroup

(d) Malani Igneous Suite

22. Flat surfaces around a natural crystal are called as :

(a) Cleavage

(b) Joints

(c) Faces

(d) Foliation

23. Gypsum type crystal symmetry is an example of :

(a) Monoclinic system

(b) Orthorhombic system

(c) Tetragonal system

(d) Cubic system

24. Contact Goniometer is used to determine the :

(a) Number of symmetry planes in a crystal

(b) Type of symmetry axis

(c) Angle between two adjacent faces of a crystal

(d) Ratio of length of crystallographic axes in a crystal

25. Which of the following is an ore of lead ?

(a) Bauxite

(b) Hematite

(c) Sphalerite

(d) Galena

26. Fluorite is at what number in the Moh's scale of hardness ?

(a) 1

(b) 2

(c) 3

(d) 4

27. Diamond and graphite are polymorph of :

(a) Magnesium

(b) Carbon

(c) Sulphur

(d) Nitrogen

28. Which of the following minerals is sulphide ?

(a) Baryte

(b) Quartz

(c) Diamond

(d) Chalcopyrite

29. How many Nicol prisms are fitted in a petrological microscope ?

(a) 1

(b) 2

(c) 3

(d) 4

30. How many carbonate minerals are there in Moh's Scale of Hardness ?

(a) 1

(b) 2

(c) 3

(d) 4

31. The Si:O ratio in Nesosilicate minerals is :

(a) 1 : 2

(b) 1 : 3

(c) 1 : 4

(d) 1 : 1

32. Which of the following best describes the lustre of mineral quartz ?

(a) Pearly

(b) Silky

(c) Greasy

(d) Vitreous

33. Which of the following is *not* a silicate mineral ?

(a) Orthoclase

(b) Muscovite

(c) Augite

(d) Magnetite

34. Which of the following is the most common mineral in igneous rocks ?

(a) Feldspar

(b) Olivine

(c) Biotite

(d) Fluorite

41. Chalcopyrite is the primary ore of :

(a) Copper

(b) Aluminium

(c) Iron

(d) Pb-Zn

42. Jhamar Kotra is known for the occurrence of :

(a) Rock phosphate

(b) Granite

(c) Marble

(d) PGE minerals

43. Which of the following is famous for copper diposits in Rajasthan ?

(a) Zawar mines

(b) Khetri belt

(c) Degana

(d) Makrana

44. The process of conversion of the ordinary light into polarized light is known as :

(a) Polarization

(b) Pleochroism

(c) Double refraction

(d) Mineral twinning

45. Which of the following is an isotropic mineral ?

(a) Quartz

(b) Tourmaline

(c) Beryl

(d) Garnet

46. Which of the following minerals is *not* pleochroic ?

(a) Biotite

(b) Quartz

(c) Hornblenda

(d) Glaucophane

47. The fundamental unit in building silicate minerals is :

(a) SiO_2

(b) SiO

(c) SiO_4

(d) Si_3O_4

48. A sedimentary rock composed mainly of calcite can best be named as :

(a) Limestone

(b) Arkose

(c) Sandstone

(d) Mudstone

49. Which of the following rocks is the most resistant to weathering ?

(a) Sandstone

(b) Basalt

(c) Quartzite

(d) Granite

50. A sedimentary rock containing variable size angular clasts can be appropriately called as :

(a) Conglomerate

(b) Limestone

(c) Breccia

(d) Sandstone

51. Which of the following structures is *not* associated with sedimentary rocks ?

(a) Graded bedding

(b) Vesicles

(c) Ripple marks

(d) Cross bedding

52. The chemical composition of mineral halite is :

(a) KCl

(b) NaCl

(c) $CaCl_2$

(d) $MgCl_2$

53. Which of the following mineral pairs is usually present in granite ?

(a) Muscovite and calcite

(b) Quartz and K-feldspar

(c) Hornblende and augite

(d) Biotite and olivine

54. Deposits formed when ice of glacier melts, are called :

(a) Drifts

(b) Dunes

(c) Veins

(d) Cirques

55. Which of the following is the oldest unit of Marwar Supergroup ?

(a) Bilara group

(b) Jodhpur group

(c) Nagaur group

(d) None of the above

56. Which of the following is the youngest unit of Vindhyan Supergroup ?

(a) Rewa group

(b) Bhander group

(c) Kaimur group

(d) Semri group

57. Deccan basalts do not occur in :

(a) Gujarat

(b) Maharashtra

(c) Himachal Pradesh

(d) Rajasthan

58. Agate is a variety of :

(a) Quartz

(b) Magnetite

(c) Calcic plagioclase

(d) Muscovite

59. Which of the following is a copper mineral ?

(a) Bauxite

(b) Goethite

(c) Siderite

(d) Malachite

60. Which of the following minerals has hardness '7' in Moh's scale of hardness ?

(a) Orthoclase

(b) Topaz

(c) Corundum

(d) Quartz

61. Which of the following minerals is composed of SiO_2 only ?

(a) Azurite

(b) Pyrite

(c) Chalcedony

(d) Apatite

62. Which of the following is *true* for index fossils ?

(a) They are large in size

(b) They have limited distribution

(c) They have vast geographical distribution and limited time span

(d) All the above

63. Which of the following States has the largest mica deposits in India ?

(a) Jharkhand

(b) Rajasthan

(c) Madhya Pradesh

(d) Bihar

64. Which of the following minerals is *not* composed of Al_2SiO_5 ?

(a) Andalusite

(b) Sillimanite

(c) Kyanite

(d) Siderite

65. Which of the following statements is *true* for an undisturbed sedimentary strata ?

(a) The age increases from top to bottom

(b) The age decreases from top to bottom

(c) The age remains constant

(d) The age does not follow any pattern with height

66. Which of the following minerals is used in construction of Nicol Prism ?

(a) Calcite

(b) Quartz

(c) Fluorite

(d) Topaz

67. What type of properties on mineral can be observed under microscope ?

(a) Physical

(b) Chemical

(c) Optical

(d) Magnetic

68. The shape of calcite crystal is :

(a) Cubic

(b) Prismatic

(c) Rhombic

(d) None of the above

69. The core of the earth is thought to be composed of :

(a) Basalt and granite

(b) Compressed gases

(c) Uranium and lead

(d) Nickel and iron

70. Seismic waves can be generated by the following activity ?

(a) Earthquake

(b) Volcanic eruption

(c) Meteorite impact

(d) All of the above

Space for Rough Work
कच्चे कार्य के लिए स्थान